

**FINAL STATEMENT OF REASONS  
FOR  
PROPOSED BUILDING STANDARDS  
OF THE  
CALIFORNIA STATE LANDS COMMISSION**

**REGARDING THE 2001 CALIFORNIA BUILDING CODE  
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2**

**MARINE OIL TERMINALS, CHAPTER 31-F**

**UPDATES TO THE INITIAL STATEMENT OF REASONS:**

There were no changes made to the regulations as a result of public comments received. Therefore, there is no update to the Initial Statement of Reasons.

**MANDATE ON LOCAL AGENCIES OR SCHOOL DISTRICTS**

The California State Lands Commission has determined that the proposed regulatory action WOULD NOT impose a mandate on local agencies or school districts.

The California State Lands Commission finds that the mandate IS NOT reimbursable.

None of the work required by these proposed regulations would incur costs to the Commission. Commission staff will oversee inspections and monitor remedial work conducted at marine terminals undergoing the Marine Oil Terminal Engineering and Maintenance Standards audits as part of their routine work that is covered by the commission's annual budget.

**OBJECTIONS OR RECOMMENDATIONS MADE REGARDING THE PROPOSED REGULATION(S).**

There were no objections to the proposed regulations. There was one recommendation made by a commenter at the public hearing. That recommendation has been addressed in the response to Comments shown below:

**SUMMARY OF AND RESPONSE TO COMMENTS RECEIVED DURING THE INITIAL NOTICE PERIOD OF MAY 28, 2004 THROUGH July 13, 2004**

**Oral comments of Mr. Dennis Bolt of the Western States Petroleum Association (WSPA)**

1. Mr. Bolt spoke for the Western States Petroleum Association (WSPA). WSPA represents the majority of petroleum-related interests in the west, including many marine oil terminal (MOT) operators in the state of California. However, WSPA does not represent the operators of many of the smaller MOTs, some of which would be most at risk of closure if the proposed regulations were adopted.

2. The Marine Oil Terminal Engineering and Maintenance Standards, proposed Chapter 31F, Title 24, Part 2, California Code of Regulations (MOTEMS) is a "world class" job in protecting against the worst-case natural disasters. It is stiffer than WSPA would like, but WSPA understands the position of the Marine Facilities Division (MFD) of the California State Lands Commission (CSLC).

3. WSPA neither opposes nor embraces MOTEMS. Its members will implement the regulations if they are adopted. But WSPA believes that there are broader public policy issues at stake.
4. CSLC has a small slice of the State's and the nation's energy policy, and it is CSLC's statutory mandate to look intensely at that one piece. When this slice of the pie is looked at in the whole context of the whole energy policy pie, some broader and more important public policy questions arise. MOTEMS was envisioned in a different time when it was perceived that California had plentiful energy supplies, sufficient refining capacity and adequate wharfage to meet needs. In the Initial Statement of Reasons (ISOR), CSLC envisions that some of the marine terminals will be found 'not fit for service' and, as such, will have to be taken out of service or made to accommodate smaller vessels. No adequate survey has been done by anyone at any level to determine which terminals might be at risk environmentally or economically.
5. The California Energy Commission has identified MOTs as an economic bottleneck to importing finished products into the State of California. More refined products may need to be brought into the State in the future, because of a shortage of refining capacity.
6. CSLC has not determined which terminal may survive an audit. Mr. Bolt reiterates that neither CSLC nor anyone has determined if and which terminals will survive the audit requirements. The proposed regulations have no provision for waivers or extensions. As WSPA sees the regulation, every terminal has to 'fit' the requirements or get out of the business. For that reason, it is unknown whether the application of MOTEMS may affect the State's energy supplies.
7. Closures of some terminals may have other effects. For example, closure of a terminal on the north coast would lead to shipment of more oil by truck on two-lane highways. The risks have not been analyzed. WSPA does not suggest that an EIR should be done, but one may help understand potential impacts.
8. The ISOR does not adequately represents the current state of MOTs in the State, nor a balanced view of the current risk. Many MOTs have been upgraded and modernized and are capable of withstanding even the most stringent risk identified in MOTEMS. Operators have invested tens of millions of dollars in many of the MOTs for the benefit of the State and the benefit of these companies; this should be considered and appropriately identified in the ISOR. A preliminary survey of MOTs in the State could be conducted to evaluate and identify the attendant risks to the State and the various locales. This would provide a "report card" as to who has upgraded and who hasn't. Mr. Bolt finally states that he would like to have a stakeholders' group to look at the report.
9. If there is a risk of spills, it is mitigated by the regulations of the Office of Spill Prevention and Response (OSPR) in the Department of Fish and Game. MOTEMS is intended to prevent a dock from collapsing and a vessel set at risk. MOTEMS also includes details regarding piping and fire. OSPR's regulations mitigate those risks.
10. There is no difference between the risk presented by the collapse of an MOT and the collapse of another type of marine terminal, such as a container terminal. In either case, a ship could be set adrift, thereby presenting the risk of an oil spill.

11. MOTEMS is more prescriptive than it needs to be, and it overreaches the protection called for in the statute. After surveys are done, there may be a more reasonable solution. The risks do not justify the capital outlay.

12. Upgrades required under MOTEMS may result in other problems with implementation. Environmental and economic effects may result. As an example of the problems confronted by an MOT operator, a permit for a security fence took two years and U.S. Coast Guard intervention before it was issued.

13. It is complicated to do anything in California. The oil industry should be trusted to do what is right.

14. MOTEMS should be implemented in stages. Audits and surveys should come first before the substantive requirements are adopted. The actual condition of all terminals could then be determined before requirements are put in place.

#### **Response to the Comments of Mr. Dennis Bolt:**

Mr. Bolt misrepresents what has occurred in the development of MOTEMS over a period of almost ten years, as well as the contents and effect of MOTEMS. Mr. Bolt also misrepresents MOTEMS itself.

Generally, Mr. Bolt's comments can be summarized as follows: CSLC has not determined the potential impact of MOTEMS upon all the State's terminals and, more broadly, the State's energy infrastructure; a phased process should be established where under CSLC undertakes surveys and audits to determine the need for, and effect of, MOTEMS on the State's terminals; and only then should the substantive requirements of MOTEMS be implemented and then only in a manner that is less prescriptive and allows flexibility. Contrary to that position, CSLC has, in effect, been undertaking the kind of surveys Mr. Bolt suggests over the last 14 years as an integral element of its responsibilities. CSLC has a very good idea as to which terminals will most likely require upgrades to comply with MOTEMS. CSLC cannot know which terminals, if any, may be shut down in the future, because those are business decisions an operator must make in light of all facts and circumstances. To date, no operator has stated that a particular terminal would shut down if MOTEMS were adopted. WSPA and all other terminal operators have had substantial input into the requirements of MOTEMS and have actively participated in its development. And, finally, MOTEMS incorporates prescriptive standards, phased implementation and flexibility to ease effective implementation.

CSLC would first like to explain what it knows, and how it knows, about the current state of the 34 existing commercial MOTs. Under the MFD's procedures, division personnel monitor ongoing operations at all of the terminals. Field inspectors observe various phases of mooring and oil transfer operations at each terminal, looking for any violations of state or federal regulations. Annual inspections are also undertaken at all the terminals, whereby MFD inspection staff performs an evaluation of required documents (e.g. oil spill response plans) and a general inspection of the entire physical facility above the waterline. Triennially, the engineering staff of the MFD performs a thorough inspection of the facility structure (above the waterline) and the electrical and mechanical systems. Finally, MFD has also performed fairly comprehensive audits of several terminals, where seismic and mooring analyses were performed and divers were used to inspect wharf/pier/trestle structures below the waterline. Through all these activities, MFD has compiled substantial data as to the physical state of each terminal.

Below, Table 1 lists the 34 existing commercial MOTs in the State. They are organized in order of current throughput (as opposed to the maximum throughput). The first column is simply an identification number for the facility. The second column lists the throughput for the twelve-month period ending June 30, 2004. The third column lists the initial build dates and dates of reconstruction to provide an idea as to how old the facility is.

The fourth column lists the applicable percentage of the State's total commercial throughput passing through the terminal. Mr. Bolt claims that, should terminals in poor condition shut down, it could have an impact on the State's energy supplies. As is explained below, this concern is not supported by the evidence. The fifth column simply lists the cumulative percentages of throughput.

The sixth column lists the applicable risk associated with the terminal. Risks are listed as High, Medium and Low. The level of risk is determined by the number of barrels that could be released into the water, the number of transfers per year and the maximum vessel size that can be accommodated. A terminal is considered a high-risk facility if it can be the source of a spill of greater than 1200 barrels and performs more than 90 transfers per year, regardless of maximum vessel size. Medium risk terminals can see spills of no more than 1200 barrels; but they perform more than 90 transfers a year and can accommodate a vessel greater than 30,000 deadweight tons. A low risk facility can see spills of no more than 1200 barrels, performs fewer than 90 transfers a year, and cannot accommodate a vessel greater than 30,000 deadweight tons.

The seventh column lists a rating for each terminal, describing the facility's general condition. The ratings of "Good", "Fair" and "Poor" represent only the global structural assessment, based on the above the water line inspections performed by CSLC engineers. These inspections are roughly the equivalent of what is known as a Level I inspection for oil platforms (as defined in API RP 2A (American Petroleum Institute Recommended Practice 2A)). The ratings of "Good", "Fair" and "Poor" can be described as follows:

**Good** – The structure appears to be in good condition and generally fit-for-purpose. A seismic assessment, mooring/berthing analysis, geotechnical investigation, and a review of piping, fire, mechanical and electrical systems may still be required for the audit and MOTEMS. Upgrades may be required.

**Fair** – The structure is probably fit-for-purpose, but needs much more detailed information to be sure. There may be pest damage of wooden piles or severe cracking of some concrete members; or the structure may be grossly undersized for the vessels that are currently being berthed/moored at the facility. The fendering system may be inadequate for the vessel (mass) berthing at the facility. A seismic assessment, mooring/berthing analysis, geotechnical investigation, and a review of piping, fire, mechanical and electrical systems may be required for the audit portion of MOTEMS. Upgrades would probably be required to protect the public health, safety and the environment.

**Poor** – The structure is probably not fit-for-purpose and will require major structural upgrades to facilitate the vessels currently calling at the wharf/pier. Many of these structures are geriatric and have been in service for more than 60-70 years. Vessels calling on these terminals are significantly larger than those used for the original design. A seismic assessment, mooring/berthing analysis, geotechnical investigation, and a review of piping, fire, mechanical and electrical systems would be required for the audit portion of MOTEMS. Upgrades would be required to protect the public health, safety and the environment.

**TABLE 1** (Includes crude, finished products and additives)

<b>MARINE OIL TERMINAL THROUGHPUT JULY 1, 2003 THRU JUNE 30, 2004</b>							
<b>FILE ID</b>	<b>THROUGHPUT</b>	<b>DATE BUILT</b>	<b>% OF STATE</b>	<b>CUM %</b>	<b>RISK</b>	<b>RATING</b>	<b>REMARKS</b>
	(Bbls)	<b>AND RECONSTRUCTION</b>	<b>THROUGHPUT</b>				
		<b>DATE(S)</b>					
.30	144,637,940	1934, '62, '70, '92	19.78%	19.8%	n/a	n/a	n/a
.5	142,865,601	1946, ' 70	19.53%	39.3%	H	G	PA
.52	114,922,100	1982	15.71%	55.0%	H	G	S, PA
.83	42,433,905	1968	5.80%	60.8%	H	G	PA, G
.57	40,651,155	1929, '54	5.56%	66.4%	H	G	S, M, G
.55	34,926,452	1967	4.78%	71.2%	M	G	S, M, G
.18	25,676,500	1904	3.51%	74.7%	M	G	S, G
.62	21,458,722	1920, '22	2.93%	77.6%	H	F	S, M, G
.88	20,300,430	1923, '59	2.78%	80.4%	M	P	S, M, G
.22	18,807,809	1900, ' 54	2.57%	82.9%	H	G	PA, S
.70	18,667,223	1938, '47	2.55%	85.5%	H	G	PA, S
.16	17,724,115	1917, '50, '66	2.42%	87.9%	H	G	S, G
.24	16,440,650	1974	2.25%	90.2%	M	G	PA, G
.53	12,471,907	1970, ' 78	1.71%	91.9%	M	G	S, M, G
.19	9,672,100	1924, ' 98	1.32%	93.2%	M	F	S, G
.92	7,100,118	1919, '27, ' 55	0.97%	94.2%	M	F	S, M, G
.94	6,505,166	1923	0.89%	95.1%	M	P	S, M, G
.81	5,895,479	1954	0.81%	95.9%	L	G	S, G
.25	5,630,300	1981	0.77%	96.6%	M	G	S, G
.60	5,095,222	1922	0.70%	97.3%	H	P	S, M, G
.69	4,745,091	1923	0.65%	98.0%	H	P	S, M, G
.76	3,735,119	1953, '66, '92	0.51%	98.5%	L	G	S, M, G
.89	2,640,071	1923, ' 59	0.36%	98.9%	M	P	S, M, G
.56	2,550,700	1965, ' 87	0.35%	99.2%	L	G	S, M, G
.85	1,957,000	1920	0.27%	99.5%	H	G	PA, G
.73	1,355,000	1962	0.19%	99.7%	M	G	S, M, G
.20	535,000	1928	0.07%	99.7%	n/a	F	PA, G
.64	492,491	1923	0.07%	99.8%	L	P	S, M, G
.47	445,674	1958, ' 96-97	0.06%	99.9%	L	G	S, M, G
.82	408,135	1953	0.06%	99.9%	H	G	S, M, G
.77	300,000	1965	0.04%	100.0%	L	F	S, M, G
.78	245,743	1973	0.03%	100.0%	H	G	S, M, G
.67	71,286	1941, ' 54	0.01%	100.0%	L	P	S, M, G
.59	35,817	1937, ' 51	0.00%	100.0%	L	G	S, M, G
<b>TOTAL</b>	<b>731,400,021</b>						

The last column lists the major engineering analyses required for the audit, in addition to the requisite under water and above water inspections. The S, M and G denote the requirements for a seismic, mooring/berthing and geotechnical investigation, respectively. PA means a partial audit was already performed. N/a means that the terminal is an offshore spread mooring and would not be subject to MOTEMS. For the port areas of Los Angeles and Long Beach, there have been recent underwater inspections sponsored by the port authorities that are not included in this survey information.

To suggest, then, that, after 14 years of surveys, a further survey is necessary to determine the conditions of all 34 terminals affected is to recommend an inappropriate delay with no identifiable purpose. CSLC is very well aware of the general conditions of all affected facilities.

What CSLC does not know, however, is the condition of all facilities below the waterline and the results of more detailed structural analyses. That is a major reason for adoption of MOTEMS. The ratings of Good, Fair and Poor were established in the absence of a complete audit. Some facilities have already performed partial audits, and CSLC is aware of seismic rehabilitation, mooring/berthing modifications or upgrades to piping, fire water systems or other mechanical/electrical systems. However, for most of the terminals, CSLC does not have sufficient knowledge as to whether or not a specific structure would meet MOTEMS requirements regarding seismic and geotechnical safety and the adequacy of mooring/berthing, fire, piping, mechanical or electrical systems. That is the purpose of MOTEMS; to ensure the State has that information. It first establishes a procedure for evaluating the "fitness-for-purpose" of the subject terminals, using the uniform standard of MOTEMS. Then it would require those facilities that do not meet the stated standards to be upgraded accordingly.

Mr. Bolt apparently would have CSLC first require audits without establishing any standards. Only after those audits were complete, suggests Mr. Bolt, should CSLC then prepare standards. It is unclear how Mr. Bolt would have those audits conducted if no standards were established against which the facilities could be judged during the audit.

Mr. Bolt may be suggesting that the proposed standards be used as a kind of guide during the audit, but that they then should be modified after the audits are complete. However, Mr. Bolt does not explain how the standards should then be modified. The proposal would have no justification if, after the audits were complete, CSLC were then to modify the standards in such a way so as to ensure that all terminals be in compliance without having to incur any expense. If the criteria for modifying the standards after the audit would be to ensure that no terminal is shut down, there is no way for CSLC to know that. Whether a terminal operator decides to shut down a facility is a business decision. CSLC cannot know what would go into a decision of that nature for each of the 34 facilities.

Mr. Bolt appears to be suggesting that CSLC prepared the MOTEMS without regard to their effect upon the regulated community. To the contrary, all the marine terminal operators in the State had an opportunity to participate in the development of MOTEMS, and most, in some way, took advantage of those opportunities. The MOTEMS were developed over a period of almost ten years. An independent consultant, Han-Padron and Ben C. Gerwick, a Joint Venture, was first hired in January 1999, to work on the project with CSLC engineers. A "strawman" proposal was developed as a basis for initial discussion among interested parties. Two workshops were then held to discuss the project. Invitations were sent to all terminal operators, and many, along with WSPA, sent representatives. Also present were representatives from academic institutions and other governmental agencies. Two separate working sessions were held with WSPA as the only participant. Informal discussions with terminal operators and engineers also took place over the

years during which the proposal was developed. To illustrate how these discussions influenced MOTEMS, the original proposal called for MOTs to be strengthened to withstand a 1000-year return period seismic event (a very large earthquake). After much discussion, it was decided to change that to a 475-year return seismic event, because that was the standard used for refineries with which many of the subject MOTs are associated. Extensive modifications were made to the initial proposal, based upon comments and discussions with members of the community affected by the proposed regulations, as well as independent engineers and parties. Finally, in 2003, the MOTEMS was developed to the point that CSLC filed notice with the Office of Administrative Law (OAL). Two public hearings were held on the proposal. The only commenter was Mr. Bolt, and the substance of his comments was the same at those hearings as they were more recently. However, Mr. Bolt added that he also believed that MOTEMS was a building standard that should be brought to the Building Standards Commission (BSC), rather than OAL. Although CSLC had previously been told in 2001 by the BSC staff that MOTEMS was not a set of building standards, CSLC took it back to the BSC, which in turn informed CSLC that, contrary to the previous representation, MOTEMS was in fact a building standard. After filing notice with the BSC, CSLC once again held a public hearing on the proposal, once again notified all terminal operators in the State of those hearings, and, once again, heard only from Mr. Bolt as the sole commenter. Finally, after again notifying all MOT operators in the State, CSLC approved submission of MOTEMS to the BSC at its regular public meeting of August 17, 2004, and, once again, Mr. Bolt was the only commenter. Any suggestion, then, that the MOTEMS were developed without consideration of their effect upon the regulated community is not supported by the record.

While CSLC can make a general determination as to the current physical state of each subject terminal, no one except a terminal's operator can determine whether a facility will cease operation. Since 1991, the year the MFD began monitoring MOTs in the State, the number of actively operated commercial MOTs has gone from 67 to 34. Twelve were no longer needed, because they were associated with power plants that have since switched from oil to natural gas. Three were closed because they were associated with oil production or refinery operations that have since ceased operation. One was replaced with expanded pipeline capacity. It is unknown why the remainder may have closed. As in any industry, there are changes in the market. There are fewer independent refiners and marketers in the State than there were 14 years ago. Whatever considerations companies may use in a decision to close a facility are rarely conveyed to CSLC. In no case, though, has CSLC ever been told that a terminal has been closed because of CSLC's regulations or enforcement activities. And, of course, since MOTEMS is not yet in effect, MOTEMS cannot be blamed for any past closures.

In any case, even if there were some closures as a result of MOTEMS, it is unlikely to have a significant impact on marine terminal capacity in the State. The information contained in Table 1, above, shows that the total throughput for all seven MOTs listed as in poor condition comprises only 5.4% of the total throughput in the State. Furthermore, since more than half of that is through one terminal that is associated with a refinery whose operator is not likely to close the terminal without also closing the refinery, one may argue that only 2.68% of the throughput passes through terminals that may be at some unknown risk of closure. CSLC has also been told that at least one company operating a "poor" terminal has contracted for use of a new, yet-to-be completed terminal in the Port of Los Angeles. The throughput at that old terminal would therefore be transferred to the new one.

It should also be noted that all the throughput rates listed in Table 1 do not reflect the maximum throughput either feasible or permitted. Maximum capacity may be 20% to 50% greater than actual throughput. However, because exact information of that nature is ordinarily considered a trade secret, CSLC does not have access to it.

It should also be emphasized that MOTEMS would not require closure or even, necessarily, rehabilitation in the event that an MOT does not meet the stated requirements. In many cases, operational changes would allow a facility to continue operating. For example, if a facility is not strong enough to secure a vessel of a certain size, it might still be used during reduced wind conditions or other similar operational limitations.

Mr. Bolt expresses a concern that any closures may affect the State's energy market. Past experience does not support this concern. Although the number of active commercial terminals in the State has gone from 67 to 34, the amount of petroleum brought into the State, as a percentage of the total volume used, has remained essentially the same. In 1990, the refineries in the State received approximately 697 million barrels of oil, of which 53% (370 million barrels) arrived by tank vessel. In 2002, the last year for which CSLC has complete data, refineries in the State received approximately 661 million barrels, of which 52% (344 million barrels) arrived by tank vessel. This does not include in-state MOT-to-MOT transfers, nor does it include imports of refined products. The reduction in total petroleum usage appears to have been achieved in large part because of the conversion of power plants to natural gas and because of increased vehicular gas mileage.

Market developments in recent years also support CSLC's conclusion that terminal capacity is not an issue at this time. A number of terminal operators are currently strengthening their mooring facilities in order to accommodate larger tank vessels. This could increase the amount a throughput without increasing the number of terminal facilities. Also, the market has not indicated any interest in increasing the number of terminals. One company recently made a decision to remove an inactive terminal in San Pablo Bay, because it could not find a buyer for it. Cenco had purchased the terminal and the refinery with which it was associated from Pacific Refining Co. Since then, the refinery was closed and replaced with residential and commercial developments. For six years, Cenco unsuccessfully sought a buyer for the terminal. Even though there are four major refineries and an independent terminal operation nearby, none of those companies felt their facilities has any need for additional terminal capacity. CSLC was told informally that there is a much greater need for new storage tanks than for additional terminals. It should also be noted that, in the 1990s, the Port of Los Angeles has expanded its facilities by developing a 19-acre area called Pier 400 specifically for MOT operations. Pier 400 is new land, created with fill material. Until this last year, no one has expressed an interest in committing to construction or relocation of MOT operations to the new site. The only interest that has developed to date has come from a company that operates an existing Port of Los Angeles terminal rated as "poor". The new facility would appear to be a replacement for the old one. In any case, there is still room for more terminal capacity at Pier 400. If there were a shortage of MOT capacity, real or perceived, the market would be making use of the site. Furthermore, if a shortage develops in the future, part of the site will still be available for MOT development and expansion.

Mr. Bolt states that the California Energy Commission has identified marine terminals as a "bottleneck" to imported finished products, most particularly gasoline. Terminals are a "bottleneck" only in the sense that any imported gasoline must flow through marine terminals, since there are no product pipelines coming into the State. The terminal capacity discussed above is used primarily for crude, because the State does have substantial refinery capacity. Most existing terminals could, however, be used for either crude oil or refined product. One limiting factor is a lack of unused tankage, as mentioned above. The other is lack of interest. Refinery operators are less likely to import refined product if they have the refining capacity to meet demand as they see it. Some independent retailers have expressed some interest in imported gasoline, but they have to date expressed no interest in creating or contributing to new



terminal capacity. The soon-to-be demolished Cenco terminal described above was used in part for a period in the 1990's to import Chinese gasoline, but there apparently was insufficient demand to keep that operation in business. Also, a proposal by Shore Terminals, LLC to construct a new open-access MOT in San Pablo Bay in the 1990s failed through lack of interest.

Mr. Bolt's comment concerning the need to analyze the environmental effect of closure of a terminal in Humboldt Bay is also unfounded. The only terminal in Humboldt Bay is in rated in good condition. Even if it were not, whether adoption of the proposed standards would ultimately lead to a business decision on the part of the facility operator to close the facility and indirectly result in some increase in truck or rail transport of oil into the county is too speculative for the California Environmental Quality Act to require evaluation. In approving MOTEMS for submission, CSLC found that the proposed regulatory program was categorically exempt under 14 California Code of Regulations §10561, insofar as it is not a project.

In response to Mr. Bolt's contention that MOTEMS does not provide sufficient flexibility or need, the purpose, contents and effect of the proposed regulatory program requires some further explanation.

The seismic analysis is required to bring the marine oil terminal up to the same level of seismic hardness as used for the reassessment of adjacent refineries. The MOTEMS prescribes no more severe seismic criteria than already imposed on a refinery. In many cases the seismic criteria is less; for structures with the medium (M) or low (L) risk rating, the seismic demand is further reduced. This is presented in Table 31F-4-2 of MOTEMS. The seismic criteria for these categories of marine oil terminals are fairly benign and in many cases will require no additional rehabilitation. For terminals rated high (H), structural rehabilitation may be required. For all new terminals, the rating of High will be required.

The average age of marine oil terminals in California is 50 years, which is the life span of typical marine structures. The most recent terminal was completed in 1982. When most of these were built, as shown in the build dates, seismic standards were practically non-existent. Therefore, CSLC believes that this level of seismic re-assessment is mandated by the Lempert, Keene, Seastrand Oil Spill Prevention and Response Act of 1990 and the State's energy needs.

The mooring and berthing requirements also need to be considered. Today, the facilities denoted by an "M" have never performed a mooring/berthing assessment to provide information as to the maximum operating wind conditions for these specific terminals. With the average age of 50 years, these facilities were designed for much smaller vessels, with smaller wind areas and smaller arrival masses (kinetic energy at vessel/wharf impact). MOTEMS addresses this issue for existing, as well as new structures, and requires that the facility perform a mooring/berthing assessment, to determine what is the maximum operating wind envelope (commonly called a wind rose) for operations. In almost all cases, this will not result in a need for major structural upgrade. It will require an engineer to assess the maximum lateral capacity of the wharf and use this limiting value to determine the maximum wind speed and direction that can be facilitated for a specific maximum size vessel. This may alter the operating wind envelope at a specific facility, and may require monitoring of wind speeds during operations. In terms of berthing, MOTEMS prescribes minimum impact velocities, which may far exceed the berthing capacity of some structures. However, MOTEMS also provides a way to address this problem without a major structural upgrade. The operator must provide a means to monitor impact velocities and verify that they do not exceed the structural capacity of the wharf or the limitations of the berthing hardware. This requirement only seeks to verify that a specific maximum size vessel is within the

engineering limits of the structure and mooring hardware and therefore cannot be considered excessive.

MOTEMS also mandates a geotechnical hazard assessment that in many cases has never been performed. CSLC believes that this is justified and has already been used by one terminal to find a serious deficiency in the foundation of an adjacent butane tank. CSLC believes that this is not an excessive requirement, and one that is completely justified. The risk of facility failure could have substantial consequences for both the environment and for public health and safety.

Mr. Bolt's complaint that MOTEMS is not performance based is therefore unsupported. MOTEMS is primarily a performance-based set of regulations. Audits are performed, and operational and facility upgrades are then required to ensure the MOT meets the performance standards provided. For example, the facility is required to meet a 475-year return seismic event. Even where there are prescriptive requirements, those provisions operate as performance standards. MOTEMS contains a provision that allows an operator in any case to propose alternatives to CSLC if the alternative provides the same or better protection than would the expressed requirement.

With regard to costs associated with each of these analyses and possible upgrades, the attachment to Form 399 included with CSLC's submittal provides the information. To summarize:

High-risk terminals: Initial costs of the audit and rehabilitation, over a 6-year period: \$870,000 per year or \$5,220,000 total. Year to complete the initial audit is 2008.

Medium-risk terminals: Initial costs of the audit and rehabilitation, over a 6-year period: \$280,000 per year or \$1,680,000 total. Year to complete the initial audit is 2009

Low-risk terminals: Initial costs of the audit and rehabilitation, over a 6-year period: \$125,000 per year or \$750,000 total. Year to complete the initial audit is 2010.

Of the seven terminals rated as "Poor," two are in the "High" risk category, three are considered "Medium" risk, and the last two are considered "Low" risk.

The initial audit completion dates would only serve to provide start dates for the rehabilitation process. For example, a high-risk terminal will complete its initial audit in 2008, but may request 4 years to complete its upgrade. That would put the total expenditures off until 2012. For a low risk terminal, the initial audit plus 4 years would place the rehabilitation completion date at 2014. There are no hard and fast deadlines wherein upgrades must be completed. The only caveat is that the operator and the CSLC must agree on a schedule of rehabilitation. The rehabilitation of a specific facility could take years, and is dependent upon owner/operator/port management agreement and the funds being made available. To suggest, then, that there is no provision for flexibility is groundless.

With regard, therefore, to Mr. Bolt's comment that MOTEMS should be implemented in stages, that is exactly what it provides.

Several other points raised by Mr. Bolt also need to be addressed. First, he states that the environmental risks from a collapse of an MOT is no greater than that which may result from some other kind of marine terminal, such as a wharf for container ships. While that may be so, CSLC has no regulatory authority over terminals that are not MOTs. It's authority under §8755 of

the Public Resources Code (P.R.C.), under which MOTEMS was pursued, gives CSLC authority over all MOTs in the State and all other marine facilities under lease from CSLC. Virtually all terminals that are not MOTs are under lease from various port authorities, rather than from CSLC, so this agency has no ability to regulate those facilities. If it did, it might be appropriate to apply provisions of MOTEMS more broadly. In any case, it is CSLC's understanding that MOTEMS, in its draft form, is in fact being applied by maritime engineers in the design and construction of new marine terminals outside of CSLC's authority, simply because it provides a good set of standards for such facilities.

Mr. Bolt also states that oil spills are already mitigated by regulations adopted by the Office of Spill Prevention and Response (OSPR) in the Department of Fish and Game. Mr. Bolt is very well aware that OSPR's regulations address preparation for and response to a spill once it reaches the water. They also concern certain harbor safety rules. The OSPR does not have authority to adopt regulations for the purpose of preventing spills from marine terminals in the first place. The Lempert-Keene-Seastrand Oil Spill Prevention and Response Act clearly gives that responsibility to CSLC under P.R.C. §8755.

Mr. Bolt also states that it is difficult to obtain approvals in California, thereby making terminal rehabilitation difficult. As explained above, MOTEMS provides for very open-ended time schedules for any rehabilitation needed. Flexibility is provided in the proposal at all stages. It makes no sense to say that something should not be done simply because it is difficult if that which needs to be done is necessary for the protection of public health and safety and the environment. As explained above, in the Initial Statement of Reasons and in the Form 399, while those subject to the proposed regulations will incur costs, there are benefits to the operator, to the public, and to the environment in ensuring that MOTs do not fail.

Finally, Mr. Bolt says that the oil industry should be trusted to do what is right. That is not always the case, as is illustrated by the following anecdote: In 1991, soon after MFD began operation, MFD staff met with a captain who was head of the shipping operations for a major oil company. The purpose of the meeting was to establish relations with one of the largest members of MFD's regulated community. However, that captain made very clear that he was of the opinion that MFD was unnecessary, that the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act was unnecessary, and that the oil transportation industry should be trusted to know what is best to keep from spilling oil. Less than two weeks later, the anchor from a tank vessel under that captain's command snagged an MOT's pipeline while trying to moor at that facility, split the pipeline and caused a spill of several thousand gallons of a crude mixture into Santa Monica Bay. This is not to say that those who would be subject to the proposed regulations cannot be trusted to make efforts to prevent spills; it is merely to say that events sometimes transpire leading to a spill. MOTEMS would help ensure against that result.

Given the above, no changes were made to the proposed provisions in response to Mr. Bolt's comments.

#### **DETERMINATION OF ALTERNATIVES CONSIDERED AND EFFECT ON PRIVATE PERSONS**

The California State Lands Commission has determined that no alternative considered would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected private persons than the adopted regulation

These proposed standards have been developed in close consultation with the marine oil industry and the regulated community. Commission staff has had extensive interaction with industry, and

have utilized many of their suggestions in the drafting of these standards. The acceptance of suggestions from the regulated community has, in effect, ensured that all alternatives have already been incorporated in the provisions of these standards. All affected parties have participated or at least been completely informed about these standards and their development. Two large workshops (80 to 100 attendees) were held during the development of these standards. Several other smaller working group type meetings were also held. At the conclusion of the public comment period, there were no technical issues, comments or statements with regard to alternative measures.

**REJECTED PROPOSED ALTERNATIVE THAT WOULD LESSEN THE ADVERSE ECONOMIC IMPACT ON SMALL BUSINESSES:**

All proposed alternatives were incorporated into the provision of the standards during their development. No alternatives were proposed during the public comment period. Therefore, there was no need for rejecting proposals.

None of the businesses affected by these standards are considered to be "small businesses" as defined in Government Code Section 11342.610.

**COMMENTS MADE BY THE OFFICE OF SMALL BUSINESS ADVOCATE**

No comments were received from the Office of Small business Advocate.

**COMMENTS MADE BY THE TRADE AND COMMERCE AGENCY**

No comments were received from the Technology, Trade and Commerce Agency.